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Telesaurus Holdings GB LLC  
Environmental LLC  
Verde Systems LLC  
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Intelligent Transportation & Monitoring Wireless LLC

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Warren C. Havens  
President

Ex parte presentation

January 21, 2011

*Filed via ECFS under WT Docket No. 06-49*

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Re: WT 06-49: the *LMS-M ITS Radio Service* NPRM.

The following supplements the preceding, 2010 filings in this docket by the entities listed above (herein, "SkyTel"). Herein, we further present progress in two matters, and a new matter.

1. Attached is a current status-report letter, dated January 21 2011, from Professor Raja Sengupta on behalf of the Institute of Transportation Studies at the University of California, Berkeley<sup>1</sup> of its soon-to-be-released study, previously summarized by Sky-Tel in this docket.<sup>2</sup>

This projects the great benefits—*in excess of \$100 billion annually*—of High Accuracy Location ("HALO") for land roadway Intelligent Transportation Systems ("ITS"). M-LMS is the nation's only, and especially suitable, radio service for mobile, wide-area ITS. That \$100B figure does not factor in HALO benefits to other ITS (rail, maritime, air travel, pedestrian and bicycle

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<sup>1</sup> See <http://its.berkeley.edu/>.

<sup>2</sup> Adam Goodliss, Venkatesan Ekambaram, Dr. Christian Manasseh, Dr. Raja Sengupta, Dr. Adib Kanafani, and Dr. Kannan Ramachandran, "Cooperative High-Accuracy-Location (Next-Generation US Positioning Infrastructure)" ("HALO" or "C-HALO") commenced in 1Q 2010, and enabled by a charitable donation from SkyTel's joint-operations company, ATLIS Wireless. See "Acknowledgment" in the attached status report. Interim report at: <http://www.its.berkeley.edu/publications/UCB/2010/WP/UCB-ITS-WP-2010-1.pdf>.

travel, container shipments, etc.) and other US critical GIS, infrastructure and services (for these, other studies reflect similar or greater benefits). Materially the same HALO ITS wireless can serve all these domains at the same time, multiplying its value and value to cost.

The US has always been the leader in location technology and systems, and with nationwide HALO, it will remain in the lead. As with GPS, HALO augmentation and backup of GPS should be open and at no cost for the core services, because it so essential to public safety and critical infrastructure. That is what the SkyTel parties proposed and committed to, from when they commenced in HALO developments years ago. They have secured this, as previously explained, via the nonprofit Skybridge Spectrum Foundation.<sup>3</sup>

2. As previously noted, SkyTel also plans in-person presentations on these matters to FCC staff this year.

This will focus on the SkyTel's plan reflected in past reports in this docket, for use of M-LMS, N-LMS, certain 200 and 900 MHz licenses SkyTel holds, along with its 35 and 43 MHz licenses, and 5.9 GHz DSRC (each of those bands are held/ available nationwide), for integrated nationwide ITS wireless founded upon C-HALO as the UC Berkeley report discusses. All major aspects of the plan are public, reflected in large part in the following links:

[www.scribd.com/warren\\_havens/shelf](http://www.scribd.com/warren_havens/shelf)

[www.docstoc.com/profile/warrenhavens01](http://www.docstoc.com/profile/warrenhavens01)

In this planning, SkyTel employs expert consultants in the relevant technologies, including (in addition to the UC Berkeley Group), Dr. Daniel Devasirvatham and Dr. Robert Desourdis of SAIC, Dr. Robert Mawrey (head of several technology companies, and PhD in meteor burst technology), and others.<sup>4</sup> We are discussing coordination of deployment and operations with a federal agency already involved in HALO for increasing applications, and hope to be able to summarize that publicly to the FCC in this proceeding, as well.

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<sup>3</sup> Several years ago, Telesaurus Holdings GB LLC irrevocably assigned, by disaggregation, 2 MHz out of the 6 MHz (bandwidth) in all its M-LMS licenses to Skybridge Spectrum Foundation as an outright charitable gift. This year, Telesaurus is arranging to make a certain "Phase 1 Use" irrevocable outright charitable-gift assignment to Skybridge of the remaining 4 MHz.

In recent weeks, the undersigned, for these licensees, submitted a request to FCC staff for guidance on how to submit this request, given its unique character.

The other LLCs listed above also plan this year similar "Phase 1 Use" and disaggregation irrevocable outright charitable-gift assignments to Skybridge.

By IRS (IRC) and Delaware law, Skybridge must use all these license assets solely for wireless of high public interest, and not for commercial wireless: in particular, wireless in the aid of federal, state and local government programs and goals to improve transportation safety and efficiency, environmental protection, etc., in ways commercial wireless do not fulfill.

<sup>4</sup> Other expert assistance and development in HALO which SkyTel funds include Professor Chris Rizos and Professor Kannan Ramachandran (and their respective associates): some of this is reflected at the following links (the first is new in this docket):

[http://www.scribd.com/doc/45875691/Distributed-High-Accuracy-Peer-To-Peer-Localization-in-Mobile-Multipath-Environments-Kannan-Venky-UC-Berkeley?in\\_collection=2340784](http://www.scribd.com/doc/45875691/Distributed-High-Accuracy-Peer-To-Peer-Localization-in-Mobile-Multipath-Environments-Kannan-Venky-UC-Berkeley?in_collection=2340784)

<http://www.scribd.com/doc/31932756/Chris-Rizos-to-Sky-Tel-Nationwide-High-Accuracy-Positioning-Infrastructure-and-Services-GNSS-Terrestrial-Including-for-Intelligent-Transportation-S>

3. In addition, Skybridge Spectrum Foundation and Telesaurus Holdings GB LLC plan to submit to the FCC a *Petition for Forbearance* in the First Quarter of this year, *requesting the Commission to forbear from applying any changed rules that may result in this docket to their M-LMS licenses to the extent that said changes decrease authorized power, time of use, or other technical operational condition, or makes any other change that could diminish the utility of these licenses for wide-area location and monitoring services to vehicles and other moving things, and other ITS applications* (to be more fully defined in the petition).

The Petition for Forbearance will be consistent with the public-interest facts and arguments these licensees and their associates have submitted in this docket. A copy of the Petition will be filed in this docket under ex parte presentation procedures.

Respectfully,



Warren Havens  
President  
Skybridge Spectrum Foundation (M-LMS licensee)  
Telesaurus Holdings GB LLC (M-LMS licensee)  
And associated LLCs indicated above<sup>5</sup>

Attachment

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<sup>5</sup> Skybridge Spectrum Foundation is an IRS-recognized tax-exempt 501(c)(3) organization. These other LLCs hold FCC licenses in lower 200 MHz and MAS 900 MHz. All of the captioned LLCs are managed by Warren Havens, who is also Director (and trustee in the public interest) of Skybridge Spectrum Foundation. The Foundation (on a nonprofit basis) and these LLCs (on a combined profit and supportive charitable basis) have cooperative plans to use their respective FCC licenses for public-interest wireless, principally, “intelligent” or “smart” transportation, energy, and environment radio systems nationwide. No financial or economic benefits flow from Skybridge to said LLCs or to any private party: all Skybridge assets and actions, under expert nonprofit legal counsel guidance, are in support of government purposes and other IRS-approved public-benefit publicly disclosed purposes. In part for these reasons, Skybridge reveals publicly its plans far more extensively than if it were a private for-profit entity. All the Sky-Tel entities also do that in this and other presentations in this docket in attempt to mitigate the risks and damages caused by the subject NPRM.

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January 20, 2011

Warren Havens  
President  
ATLIS Wireless LLC and  
Skybridge Spectrum Foundation  
2509 Stuart Street  
Berkeley CA 94705

Mr. Havens,

This letter summarizes the status of our study on the benefits and costs of infrastructure for Cooperative High Accuracy Location (C-HALO). We released an interim report in August 2010 available for public download at <http://www.its.berkeley.edu/publications/UCB/2010/WP/UCB-ITS-WP-2010-1.pdf>. The primary authors of the report are Adam Goodliss, Venkatesan Ekambaram, and Dr. Christian Manasseh, supervised by Professors Adib Kanafani, Kannan Ramachandran, and myself. Our final report will be available for limited review this month and for public release in March 2010.

The final report includes a comprehensive review of the benefit-cost literature pertaining to the C-HALO concept. The literature argues C-HALO investment should benefit many sectors of the economy. Benefits to the agriculture, mining, and construction sectors of C-HALO (and like high accuracy positioning) are particularly well quantified in existing literature. Our report will add the benefits of future C-HALO investment on the road transportation sector. Our analyses indicate C-HALO benefits to the road transportation sector will exceed \$ 100 billion annually at the minimum.

On the cost side, our emphasis has been on wide-area N-RTK technology, which supplements GPS-GNSS, and which is being substantially deployed worldwide. The final study will describe certain estimated core costs. Finally, our report will describe a method to identify those parts of the road network benefitting the most from deployment of new C-HALO infrastructure.

Our study is partially enabled by the charitable gift from ATLIS Wireless LLC to the Regents of the University of California, for this study. We are grateful for this gift. No part of this letter is deemed confidential by us.

Sincerely

A handwritten signature in black ink, appearing to read 'Raja Sengupta'.

Raja Sengupta,  
Associate Professor, University of California at Berkeley